

Abstract

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A process for hydrogenating benzenepolycarboxylic acids or a derivatives thereof by bringing one or more benzenepolycarboxylic acids or derivatives thereof into contact with a hydrogen-containing gas is carried out in the presence of a catalyst containing macropores. The catalyst contains, as an active metal, at least one metal of transition group VIII of the Periodic Table alone or together with at least one metal of transition group I or VII of the Periodic Table. Except that hydrogenation of dimethyl terephthalate using a catalyst containing ruthenium as active metal, either alone or together with at least one metal of transition group I, VII or VIII of the Periodic Table, applied to a support having a mean pore diameter of at least 50nm and a BET surface are of at most 30m²/g, where the active metal is present in an amount of from 0.01 to 30% by weight, based on the total weight of the catalyst, and the ratio of the surface areas of the active metal and the catalyst support is less than 0.05, is excluded. Likewise, hydrogenation of dimethyl terephthalate using a catalyst containing ruthenium as active metal, either alone or together with at least one metal of transition group I, VII or VIII of the Periodic Table, applied to a support with from 10 to 50% pore volume formed by macropores with pore volumes from 50 nm to 10,000 nm, and 50 to 90% pore volume formed by mesopores with pore diameters from 2 to 50 nm, with the pore volumes adding up to 100%, where the active metal is present in an amount of from 0.01 to 30% by weight, based on the total weight of the catalyst, is also excluded. Further, novel hydrogenation products, obtainable by hydrogenating benzene-polycarboxylic acid and derivatives, as well as their use as plasticizers in plastics.